Hong Kong • +86 191 2136 4016 • pengziwei.luo@bayes.city.ac.uk

ANALYTICAL PROBLEM SOLVER

PENGZIWEI LUO

Nearly qualified (IFoA, UK) non-life actuarial professionals with 10-year overseas experience and HK Entry under the Top Talent Pass Scheme. Dynamic and versatile with the ability to seamlessly work across pricing, reserving and capital modelling. Frequently initiated and led projects to improve and optimise process and capital efficiency by employing strong analytical and advanced programming skills. Worked in the UK as well as AIG Shanghai office after achieving top results from Cass Business School and Imperial College London. Native Mandarin speaker while fluent in English.

// CORE COMPETENCIES -

- Advanced Analytics
- Interdepartmental Collaboration
- Stochastic / Statistical Modelling
- Empirical Research
- Quantitative Analysis

- Algorithm Development
- Efficiency Optimisation
- Sensitivity / Stress Testing
- Complex Problem-Solving
- Capital Planning
- Cashflow Projections
- Data Management
- Regulatory Reporting
- Report Writing
- Insight Generation

// PROFESSIONAL EXPERIENCE AND ACHIEVEMENTS -

LIBERTY MUTUAL, EAST ECONOMICS, PRODUCT

Senior Analyst

- Developed operational forecast tool with automation for China motor business to support company growth strategy.
- Introduced cutting-edge statistics in addition to traditional and/or internal sources to increase business intelligence.
- Explore newly available database and document finding and assessment to provide reference for global audience.

AIG, COMMERCIAL PROPERTY AND ENERGY AND ENGINEERED RISKS DEPARTMENT, APAC

Pricing Actuary

Led accurate and timely delivery of statistical pricing / rate reviews and pricing-related statistical analysis. Utilised actuarial judgement to interpret and articulate results from actuarial pricing while providing statistical modelling support. Key conduit for regional technical and actuarial matters. Completed profitability studies and monitored commercial property portfolios across SME, middle and large markets for 14 territories. Supported seamless global annual budgeting.

- Delivered underwriting excellence, technical actuarial pricing and risk management elements aligned with global strategic objectives while supporting achievement of group capital efficiency and reinsurance strategies.
- Pioneered automation across APAC region using R, including improving service delivery, transforming legacy systems, and becoming 1st of a few internationally to manoeuvre over a global new database despite limited resources.
- Optimised risk classification and aggregation for 4 types of claims and 12 industries, improving actuarial analysis by collaborating with Underwriting, Reserving Actuaries, Claims departments and CAT Modelling team.
- Introduced price reporting into APAC using R by creating new actual vs technical pricing reports, tracking and enhancing rate adequacy and data accuracy.
- Increased analysis transparency, flexibility, accountability, reproducibility, and presentation via development of a new versatile template acting as a bridge between profitability studies and budgeting processes.
- Built bespoke APAC region rating tool while facilitating frictionless adoption of a location-based global pricing tools by APAC Underwriters, developing new markets and securing businesses from 8 large clients.
- Advised on technical methodologies, statistical modelling, analytical specifications, and techniques for ~30 underwriters across the region.
- Drove pricing robustness across global pricing workstreams, platforms and languages, such as VBA and Python while optimising pricing system performance through maintenance and development support.

Beijing, China

Feb 2023-Jul 2023

Shanghai, China Mar 2020-Sep 2021

// PROFESSIONAL EXPERIENCE AND ACHIEVEMENTS, CONTINUED --

TESCO UNDERWRITING LIMITED, ACTUARIAL DEPARTMENT

Rapidly promoted to Senior Actuarial Analyst with a key role within the Actuarial Department having achieved 'Exceeding Expectation' rating during annual review for exceptional attitude and performance. Utilised knowledge of probability theory and statistics to contribute to actuarial decision-making while gaining familiarity with real-world stress and scenario testing. Produced reports, including: TAS and actuarial; presented results to diverse audiences. Engaged key stakeholders and completed research and analysis to drive data-informed strategic decisions.

Senior Actuarial Analyst

- Improved stochastic motor large losses (PPO) cashflow model to ensure reserve risk adequacy in Solvency Capital Requirement (SCR) and financial statement accuracy while promoting capital model renovation.
- Cut run time by 98% and aided strategic decision-making having transferred large losses model into Tyche and R.
- Assessed capital requirement and impact via Remetrica for reporting, reinsurance purchasing and decision-making.
- Calibrated 5 PPO model parameters using internal / market data to ensure parameter and assumption robustness.
- Produced monthly reserve results for International Financial Reporting Standards (IFRS) reports in 2 working days.
- Assisted Solvency II Internal Model regulatory approval process to meet company and group-wide objectives.

Actuarial Analyst

- Increased data processing efficiency by 90% having used VBA to create processes and templates; also reduced run time by 70%, improved model validation and optimised large losses modelling.
- Performed reserving analysis in ResQ and Excel to assist reinsurance purchasing, business planning, Solvency II reporting and forecasting.

// EARLY CAREER SUMMARY —

JIXIANG LIFE INSURANCE CO. LTD, ACTUARIAL DEPARTMENT Intern	Changsha, China Mar-Jun 2014
// PROFESSIONAL DEVELOPMENT	
INSTITUTE AND FACULTY OF ACTUARIES (IFoA, UK) Fellowship of IFoA: Final module in progress: SA3 – Specialist Advanced	London, UK
// EDUCATION AND AWARDS	
CASS BUSINESS SCHOOL	London, UK
MSc Actuarial Management (Distinction, top 10)	Sep 2015-Oct 2016
Dissertation: Credibility Balanced Bias vs Instability Trade-Off Within Double Chain Ladder	
Award: SCOR Actuarial Prize - Non-Life (Nov 2017, only recipient)	
IMPERIAL COLLEGE LONDON	London, UK
MSc Statistics (Merit)	Oct 2014-Nov 2015
Dissertation: Dynamic Network Model Using Multivariant Point Process	
AUSTRALIAN NATIONAL UNIVERSITY	Canberra, Australia
BSc Actuarial Studies; BSc Economics (High Distinction, top 10%)	Feb 2010-Dec 2013
Award: International Merit Scholarship for Commencing Students (May 2010, only recipient).
// Additional Skills	

IT SkillsReserving: ResQ; Capital: ReMetrica; Pricing: Emblem; Programming: VBA, R, Tyche, SAS
Productivity: Latex, Microsoft Office (Word, Excel, PowerPoint, Outlook).Languages:Fluent English and (Native) Mandarin

Reigate, UK

Jan 2017-Jun 2018

Jul 2018-Oct 2019